

DEVICE AND METHOD FOR EXTRACTING BODY FLUID

ABSTRACT OF THE DISCLOSURE

A device for extracting bodily fluid (such as an ISF sample) includes a penetration member with a channel (e.g., a hollow needle) and a fluid flow regulator (for example, a narrow-bore cylinder) disposed within the channel. The penetration member is configured for penetrating a target site (such as a dermal tissue target site) and subsequently residing within the target site and extracting a bodily fluid sample therefrom. The fluid flow regulator is adapted to control (e.g., reduce or minimize variation in) bodily fluid flow rate through the penetration member. In addition, the presence of the fluid flow regulator in the channel of the penetration member serves to reduce sensor lag by reducing the dead volume of the penetration member. A method for extracting bodily fluid from a target site includes providing the aforementioned device. Next, the target site is penetrated with the penetration member of the device. Subsequently, bodily fluid is extracted from the target site via the penetration member and the fluid flow regulator of the device.